

REMARKS

In the Office Action, the Examiner indicated that claims 1 through 17 are pending in the application, that claims 12-17 are allowed, that claims 1 and 4-11 are rejected and that claims 2 and 3 are objected to.

The Objected-to Claims

On page 4 of the Office Action, the Examiner indicated that claims 2-3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In view of the amendment to claim 1 and the arguments presented below, applicant has opted to leave objected-to claims 2-3 in their dependent form at this time.

Claim Rejections, 35 U.S.C. §102

On pages 2 and 3 of the Office Action, the Examiner rejected claims 1, 4-6, and 8-11 under 35 U.S.C. §102(a) as being anticipated by applicant's prior art.

The Present Invention

The present invention is directed to a superior transmit and receive protection circuit for use in a communication system. In the superior transmit and receive protection circuit, the DC currents through an input side and an output side of a four-diode gate are controlled independently. By independently controlling the DC currents through each side of the four-diode gate, more control over the DC currents through the individual diodes of a four-diode gate is achieved. This allows a four-diode gate having low AC resistance to

be created in which low power AC signals on an input side of the four-diode gate are accurately reproduced on an output side of the four-diode gate.

In a first embodiment each diode of the four diode gate has an independent resistor that is used for current control; in a second embodiment, two of the four diodes have independent resistors used for current control, and the other two diodes share a single resistor for current control.

The Prior Art

U.S. Patent No. 4,453,091 to Katakura et al.

U.S. Patent No. 4,453,091 to Katakura et al. teaches a noise reduction circuit which produces a level detected output signal in response to an input signal. The Examiner relies upon Katakura et al. for an asserted teaching of the use of a resistor as a current source in a noise reduction circuit.

The Cited Prior Art Does Not Anticipate the Claimed Invention

The MPEP and case law provide the following definition of anticipation for the purposes of 35 U.S.C. §102:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP §2131 citing *Verdegaal Bros. v. Union Oil Company of California*, 814 F.2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987)

The Examiner Has Not Established a *prima facie* Case of Anticipation

With respect to claim 1, claim 1 recites four separate resistors (“first and second resistors”; “third and fourth resistors”). The prior art admitted by the applicant, illustrated

in Figure 1A of the present application, utilizes two resistors, R1 and R2. This is in direct contrast to the four claimed resistors, which are also clearly illustrated in Figure 2A. As noted in the present application, use of the four independent resistors claimed in claim 1 allows control of the DC current through the input side and the output side since the currents are primarily determined by the resistance of the resistors, which exhibit more accurate and stable resistance characteristics than the diodes, the DC control currents through the four-diode gate can be well controlled using the four claimed resistors of the present invention.

The admitted prior art does not teach the structure of the present invention nor the ability to control the current as can be done with the present claimed invention.

Accordingly, claim 1 and all claims depending therefrom (claims 2-5 and 7) are allowable over the prior art of record.

Claim 6 has been canceled to eliminate confusion regarding the claimed resistances. Claim 6 has been rewritten essentially independently in claim 18 to specifically recite the structure illustrated in Figure 2B. Like the structure of Figure 2A, the structure of Figure 2B is not taught or suggested by the admitted prior art. The admitted prior art makes use of and reference to only two resistors configured in a particular manner, while the present invention utilizes three configured as claimed. Like the first embodiment described above, the configuration allows for DC current control through the input side and the output side. This patentably distinguishes over the admitted prior art. Thus, claim 18 is patentably distinct over the admitted prior art and is in condition for allowance.

Claim 8 is an independent claims reciting a protection circuit with first and second strings of series connected diodes, wherein the strings are adapted to carry substantially

independent DC currents. Contrary to the Examiner's assertion, the prior art illustrated in Figure 1A cannot carry substantially independent DC current. Thus, claim 8 patentably defines over the admitted prior art and is in condition for allowance.

Claim 10 has been cancelled in favor of an independent claim, claim 19, which recites an alternative embodiment whereby first and second series connected diode strings are coupled in series to carry substantially the same DC current therein. Again, the prior art admitted by the applicant does not teach or suggest this feature. Accordingly, claim 19 is allowable.

Regarding claim 7, first, claim 7 is directed to a protection circuit, which is not analogous to the level detection circuit of Katakura. In other words, the art relied upon by the Examiner in rejecting claim 7 is not analogous art and therefore is inappropriate for use in rejecting claim 7. More importantly, however, claim 7 depends from claim 1 and is therefore allowable for the reasons set forth above.

Conclusion

The present invention is not taught or suggested by the prior art. Claims 12-17 have been allowed. Claims 1-5, 7-9, 10, 11, 18 and 19 patentably define over the prior art for the reasons set forth herein. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims. An early Notice of Allowance is earnestly solicited.

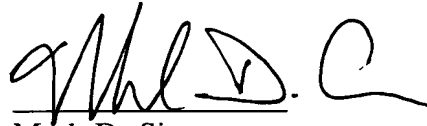
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The Commissioner is hereby authorized to charge any additional fees associated with this communication to Deposit Account No. 19-5425.

Respectfully submitted,

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Date

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